Roll No. | | | | | | | | | | | | | **Total No. of Pages : 02**

Total No. of Questions : 09

B.Sc. (Non-Medical) (Sem.–4)

INORGANIC CHEMISTRY-III

Subject Code : BSNM-401-18

M.Code : 77679

Date of Examination : 13-12-22

Time : 3 Hrs. **Max. Marks : 50**

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying ONE marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. Write briefly :

a) Write IUPAC nomenclature for $K^2[Cr(CO](CN]^5]$

b) Write one example of geometric isomerism.

c) What is the difference between double salt and coordination complex?

d) What is alkalides?

e) Arrange the solubility sequence of halide ions in liquid ammonia.

f) Calculate the oxidation number of iodine in H_5IO_6.

g) Write one example of lanthanide element with atomic number and electronic configuration.

h) What is actinide contraction?

i) Mention two examples of essential elements.

j) Give example of oxygen carrier protein.

SECTION-B

2. Briefly explain linkage isomerism with suitable example.

3. Why actinides exhibit oxidation state higher than +3?

4. Write a short note on Latimer diagram with suitable example.

5. Discuss the general characteristics and chemical reactions in liquid ammonia.

6. Explain biological role K^+ and Ca^{2+} ions in physiological system.

SECTION-C

7. Briefly explain the effect of electronic structure, oxidation state and ionic radii of lanthanide elements with increasing the atomic number.

8. Draw the active site structure of haemoglobin with explaining its role in physiological system.

9. Discuss Werner's coordination theory. Mention two examples of chelates complexes.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.